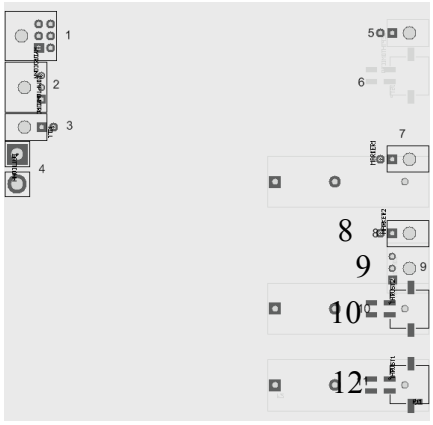
2009 Hydrodepth Board

Essential hardware	
Product Number	Device Name
	16/32 Atmega Microcontroller
AD7791	24-Bit Sigma-Delta ADC
ADR130	1V Voltage Reference
MC33887VW-ND	H-bridge



The board combines the functionality of several existing boards with new functionality from nova to make triton more backwards compatible. This enables the team to test nova technology on triton. The board adds two strafing thrusters, provides isolated power and a serial connection for the hydrophones, has and adc for the depth sensor, and has two marker droppers.

Connector Information (larger layout of connectors in appendix)	
Hydrophone Connection (1)	Pin 1: tx from hydrophones
	Pin 2: rx to hydrophones
	Pins 3 and 4: 5.5 Volts
	Pins 5 and 6: Ground
Computer to hydrophones connection (2)	Pin 1: tx from hydrophones
	Pin 2: rx to hydrophones
	Pin 3: Gound
Kill (3)	Pin 1: Ground
	Pin 2: kill_L
Battery Connection (4)	Pin 1: Battery Voltage
	Pin 2: Battery Ground
Depth Sensor to Microcontroller (5)	Pin 1: Sensor output
	Pin 2: 12 Volts
Distribution Power (6)	Pin 1 and 2: Ground
	Pin 3: 5 Volts
	Pin 4: 12 Volts
Marker Droppers (7 and 8)	Pin 1: power_H
	Pin 2: Battery Ground
Compuer to Thrust (9)	Pin 1: rin for microcontorller
	Pin 2: Ground
	Pin 3: tout for microcontroller
Thruster Inputs (10 and 11)	Pins 1 and 2: Thustpower A
	Pins 3 and 4: Thustpower B